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10/561,159

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EXAMINER

GATES, ERIC ANDREW

ART UNIT

PAPER NUMBER

3726

NOTIFICATION DATE

DELIVERY MODE

12/03/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/561,159 | Applicant(s) MIYASHITA, KINYA | |
| | Examiner ERIC A. GATES | Art Unit 3726 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/13/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to Applicant's amendment filed 13 August 2008.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Federlin et al. (U.S. Patent 5,572,398) in view of Herchen (U.S. Patent 5,870,271).
4. Regarding claim 1, Federlin et al. discloses a bipolar electrostatic chuck 10, comprising: a chuck main body 11 having a mounting surface 13; an annular electrode member 15 which is formed in an annular configuration with a center opening and is fixed onto the mounting surface; an inner electrode member 11 which is disposed at a given clearance from the annular electrode member within the center opening of the annular electrode member and is fixed onto the mounting surface; and an outer electrode member 11 which is disposed at a given clearance from the annular electrode member outside of the annular electrode member and is fixed onto the mounting surface, wherein, at the time of assembling, the annular electrode member is fixed onto the mounting surface through an adhesive layer (epoxy), and respectively, the inner

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electrode member and the outer electrode member constitute a first electrode 11, and the annular electrode member constitutes a second electrode 15, and after use, the annular electrode member can be separated from the mounting surface by removing the adhesive layer (it is inherent that the annular electrode member can be separated from the mounting surface by removing the epoxy or alternative holding means as disclosed by Federlin et al. holding the member to the surface, even if the separated parts are not reusable after the separation).

Federlin et al. does not disclose the inner electrode member and the outer electrode member are fixed onto the mounting surface through an adhesive layer which is made of one or two materials selected from silicone-based adhesive agent and polyvinyl butyral adhesive agent, or the inner electrode member, and the outer electrode member can be separated from the mounting surface by removing the adhesive layer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the top surface of the body portion 11 as separate inner and outer electrode members, for the purpose of being able to attach them in a similar way to electrode member 15, because it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. Thereafter the inner and outer electrode members would be separable from the mounting surface in a similar manner to the annular electrode member as described above.

Furthermore, Herchen teaches the use of an adhesive layer that can be made from silicone containing acrylic adhesive for the purpose adhering the electrode

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assembly to the chuck. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the chuck of Federlin et al. with the adhesive of Herchen in order to have an alternative adhesive material for attaching the electrodes to the chuck main body.

5. Regarding claim 2, the modified invention of Federlin et al. discloses wherein the chuck main body 11 constitutes the first electrode 11 together with the inner electrode member 11 and the outer electrode member 11.

6. Regarding claim 3, the modified invention of Federlin et al. discloses wherein the mounting surface of the chuck main body has an outer convex portion for positioning the outer electrode member in a heightwise direction with respect to the mounting surface and/or an inner convex portion for positioning the inner electrode member in the heightwise direction with respect to the mounting surface (it is inherent that when the top surface of body portion 11 is made separate to form the inner and outer electrode members that the portions remaining below the electrodes will form inner and outer convex portions for positioning the electrodes in the heightwise direction).

7. Regarding claim 5, the modified invention of Federlin et al. discloses wherein at least one of the inner electrode member, the annular electrode member, and the outer electrode member which are fixed onto the mounting surface of the chuck main body through the adhesive layer is fixed onto the mounting surface of the chuck main body in a complementary configuration with each other (as seen in figure 1 of Federlin et al., the annular electrode member is complementary to the chuck main body).

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8. Regarding claim 7, the modified invention of Federlin et al. discloses wherein the inner electrode member, the annular electrode member, and the outer electrode member are made of pure aluminum (see column 3. lines 13-40).

9. Regarding claim 9, the modified invention of Federlin et al. discloses wherein the adhesive layer is made of an elastomer-based adhesive agent.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Federlin et al. (U.S. Patent 5,572,398) in view of Herchen (U.S. Patent 5,870,271) and further in view of Chen et al. (U.S. Patent 5,691,876).

11. Regarding claim 4, the modified invention of Federlin et al. discloses the invention substantially as claimed, except Federlin et al. does not disclose wherein positioning pins that position the inner electrode member, the annular electrode member, and the outer electrode member in a horizontal direction with respect to the mounting surface are disposed between the chuck main body, and the inner electrode member, the annular electrode member, and the outer electrode member which are fixed onto the mounting surface of the chuck main body through the adhesive layer, respectively.

Chen et al. teaches the use of positioning pins 120 for the purpose of aligning an electrode member 122 and conductive extensions 116 on support platen 110.

Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the chuck of Federlin et al. with the positioning pins of

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Chen et al. in order to more precisely positioning the electrodes prior to attaching them with the adhesive.

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Federlin et al. (U.S. Patent 5,572,398) in view of Herchen (U.S. Patent 5,870,271) and further in view of Umetsu et al. (JP Patent 2000-183143 A).

13. Regarding claim 6, the modified invention of Federlin et al. discloses the invention substantially as claimed, except Federlin et al. does not disclose wherein the chuck main body and the annular electrode member have interposed therebetween a positioning spacer for positioning the annular electrode member in the heightwise direction with respect to the mounting surface.

Umetsu teaches the use of an insulating spacer 6 for the purpose of preventing an electrode layer from coming into contact with the supporting substrate 5 in the heightwise direction. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the chuck of Federlin et al. with the spacer of Umetsu et al. in order to more precisely positioning the annular electrode with respect to the chuck main body.

Allowable Subject Matter

14. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. Applicant's arguments filed 13 August 2008 have been fully considered but they are not persuasive.

16. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the electrodes would not be removable without a complicated mechanical operation or without damage) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

17. For the reasons as set forth above, the rejections are maintained.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC A. GATES whose telephone number is (571)272-5498. The examiner can normally be reached on Mon-Thurs 8:45 - 6:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. A. G./
Examiner, Art Unit 3726
20 November 2008

/DAVID P. BRYANT/
Supervisory Patent Examiner, Art Unit 3726